

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/016814

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl? G09F9/00, H05B33/10, H05B33/14, H01L29/786, H01L21/288, H01L27/768, H01L27/088

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl? G09F9/00, H05B33/10-33/28, H01L29/786, H01L21/288, H01L27/768, H01L27/088

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2005, Japanese Registered Utility Model Gazette 1994-2005, Japanese Gazette Containing the Utility Model 1996-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 7-312290 A (NEC CORPORATION) 1995.11.28	1,12
Y	paragraph [0037] - [0047], figs. 2-4 & US 5747930 A1 & EP 684753 A1	2-11,13-47
Y	JP 2003-058077 A (FUJI PHOTO FILM CO., LTD.) 2003.02.28 whole document (family:none).	2-11,13-47
Y	JP 2000-259099 A (SEIKO EPSON CORPORATION) 2000.09.22 paragraph [0028], [0040], figs. 3,8 & US 6614053 B1 & CN 1269520 A & TW 498553 B	10
Y	JP 2000-269336 A (TOSHIBA CORPORATION) 2000.09.29 whole document & TW 449818 B	22-35



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

07.02.2005

Date of mailing of the international search report

01.3.2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-281438 A (SEIKO EPSON CORPORATION) 2001.10.10 paragraph [0039], [0054], figs.1-12 (family:none)	22-35
Y	JP 2003-050405 A (MATSUSHITA ELECTRIC INDUSTRIAL Co., LTD.) 2003.02.21 paragraph [0078]-[0088], figure 14,15 & US 2002/056838 A1 & EP 1209748 A1 & CN 1353329 A	31-35